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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/802,692

03/16/2004

Gregory J. Peterson

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EXAMINER

KRISHNAN, MALINI

ART UNIT

PAPER NUMBER

1714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/802,692

Applicant(s)

PETERSON ET AL.

Examiner

Malini Krishnan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 98-103, 106 and 131-138 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 98-103, 106 and 131-138 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/10/2004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The U.S. Patent No. of application serial number 09/754,240 is blank in paragraph 1, line 2.

Appropriate correction is required.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Applicant is advised that should claim 131 be found allowable, claim 132 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Examiner advises deletion of claim 132, and subsequent renumbering of claims 133-138 as claims 132-137 dependent on claim 131. The following rejections are based off of originally numbered claims. Should applicant renumber claims 133-138 as claims 132-137, it is noted that they will be covered by the rejection set forth applied to the originally numbered claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 98 and 99 are rejected under 35 U.S.C. 102(b) as being anticipated by Collier ('722), hereinafter referred to as Collier.

Collier discloses an assembly for cutting a workpiece of wallboard or the like. It is the examiner's position that this reads on the instant claimed "corrugated cardboard". The assembly comprises a plurality of freely rotating lower circular blades and a plurality of freely rotating upper circular blades juxtaposed along a first and second common axis respectively, which are generally parallel and axially adjustable. The lower blades form a first cutting edge that overlaps a second cutting edge formed by the upper blades. The blades, mounted on an arbor, are formed with a plurality of teeth, which slice material placed between the upper and lower blades (Col. 2, lines 22-23; Col. 3, lines 10-16; Col. 5, lines 4-19, 37-47, 65-68; Col. 6, lines 1-14).

Thus, Collier anticipates every limitation of claims 98 and 99.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 98-99, 101-102, and 106 are rejected under U.S.C. 103(a) as being unpatentable over Baron ('026), hereinafter referred to as Baron, in view of Collier.

Baron discloses an assembly for discarded material such as cardboard, which comprises a plurality of lower circular blades and a plurality of upper circular blades juxtaposed along a first and second common axis respectively, which are axially adjustable. The lower and upper blades are mounted on a lower and upper shaft, respectively, and protrude through slots in a lower and upper column, respectively, into a cutting chamber. Rotation of the shafts causes rotation of the blades, wherein means for rotation includes gear mechanisms (Col. 1, lines 60-66; Col. 2, lines 3-12; Col. 3, lines 2-6; Col. 4, lines 14-64).

Baron does not disclose alignment of the first and second common axis to be parallel nor overlapping.

The discussion of Collier in paragraph 5 above is herein incorporated by reference. Collier discloses parallel alignment as well as overlapping of the lower and upper blades (Col. 5, lines 40-44; Col. 7, lines 1-5).

It would have been obvious to one of ordinary skill in the art to make the assembly of Baron in a parallel and overlapping fashion like Collier because it would allow for symmetry and consistency in the slices being cut.

9. Claim 103 is rejected under U.S.C. 103(a) as being unpatentable over Baron in view of Collier, and further in view of Vits ('262), hereinafter referred to as Vits.

The discussion of Baron and Collier in paragraph 8 above is herein incorporated by reference.

Baron does not disclose the means for rotating the shafts comprising spur gears.

Vits discloses a cylindrical cutter roll of which the means of rotation is spur gears (Fig. 1-3; Col. 2, lines 52-57).

It would have been obvious to utilize spur gears of Vits as the means of rotating the shafts of Baron because the gear mechanisms of Baron are similar enough, such that the use of spur gears would be an obvious substitution.

10. Claims 101, 102 and 106 are rejected under U.S.C. 103(a) as being unpatentable over Collier in view of Baron.

The discussion of Collier in paragraph 5 above is herein incorporated by reference.

Collier does not disclose (i) the first and second common axes comprising a first and second shaft, whereupon rotation of the shafts cause rotation of the lower and upper blades, and (ii) a lower and upper guide plate including a plurality of slots through which the cutting edges of the lower and upper blades extend therethrough.

With respect to (i), Baron discloses a cutting assembly in which a plurality of upper and lower blades is present on a first and second shaft, whereupon rotation of the shafts causes rotation of the blades (Col. 1, lines 60-67; Col. 2, lines 4-15).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize a shaft of Baron in the assembly of Collier because a shaft would easily accommodate the plurality of blades Collier disclosed. If Collier's blades were mounted on a shaft, rotation of the shaft would obviously cause rotation of the blades.

With respect to (ii), Baron discloses a cutting assembly comprising guide plates with slots through which the upper and lower blades protrude (Col. 2, line 55 - Col. 3, line 6).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize the slots of Baron in the assembly of Collier because a guide plate with slots would enhance the stability of the blades and would ensure them to be parallel, as disclosed in Collier.

11. Claim 100 is rejected under 35 U.S.C. 103(a) as being unpatentable over Collier in view of Michalek ('267), hereinafter referred to as Michalek.

The discussion of Collier in paragraph 5 above is herein incorporated by reference.

Collier does not disclose non-fluted teeth.

Michalek discloses a blade comprising teeth having trapezoidal shape. It is the examiner's position that this particular shape reads on the instant claimed "non-fluted teeth". The advantage of trapezoidal teeth is that each tooth has three cutting edges, which allows the blade to cut in an upward and downward fashion (Col. 2, lines 1-15).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize the teeth of Michalek on the blades of Collier because of the aforementioned advantages. Replacing the teeth of Collier with trapezoidal teeth would prove to be beneficial in the use of the blade when cutting down and up through the cardboard.

12. Claims 131-133, 135, 136, and 138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baron in view of Collier and further in view of Gerber (411), hereinafter referred to as Gerber.

The discussion of Baron and Collier in paragraph 8 above is herein incorporated by reference.

Neither Baron nor Collier discloses frayed cutting edges.

Gerber discloses a cutting apparatus for cardboard workpieces in which a cutting wheel has cutting edges arranged coaxially of an axis of rotation. It is the examiner's position that this reads on a shaft containing a plurality of circular blades juxtaposed

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along one axis. The wheel rotates, thereby rotating the cutting edges, which cut the cardboard producing a frayed edge (Col. 2, lines 30-33, 45-50; Col. 6, lines 40-50; Fig. 5)

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to utilize the cutting edge of Gerber producing frayed edges in the combined assembly of Baron and Collier because frayed edges are known to be useful in the use of recycled cardboard. Since the objective of Baron to slicing the material is for recycling purposes, it would be an obvious advantage to produce frayed edges.

13. Claim 134 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baron in view of Collier and Gerber, and further in view of Michalek.

The discussions of Baron, Collier and Gerber in paragraphs 8 and 12 above are herein incorporated by reference.

None of Baron, Collier or Gerber discloses blades comprising non-fluted teeth.

The discussion of Michalek in paragraph 10 above is herein incorporated by reference.

It would have been obvious to one of ordinary skill in the art to utilize the non-fluted teeth of Michalek in the combined assembly of Baron, Collier, and Gerber because of the advantages of the teeth having three cutting sides.

14. Claim 137 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baron in view of Collier and Gerber, and further in view of Vits.

The discussions of Collier, Gerber and Baron in paragraphs 5, 12, and 8, respectively, above are herein incorporated by reference.

None of Collier, Gerber, or Baron discloses spur gears as means of shaft rotation.

Vits discloses a cylindrical cutter roll of which the means of rotation is spur gears (Fig. 1-3; Col. 2, lines 52-57).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to employ Vits' spur gears in the combined assembly of Collier, Gerber, and Baron because the gear mechanisms of Baron are similar enough to the spur gears of Vits, such that the use of spur gears would be an obvious substitution.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Malini Krishnan whose telephone number is 571-272-6519. The examiner can normally be reached on Monday through Friday, 8:00 am - 5:00 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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